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Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

- 1. (Currently amended) A method for determining the presence or absence of a cancer in a patient, wherein the cancer is at least one of cervical cancer, breast cancer, ovarian cancer and lung cancer, the method comprising the steps of:
- (a) determining the level of expression of hPygo2 gene as shown in SEQ ID NO:1 in a biological sample obtained from a patient, and
- (b) comparing the level of hPygo2 gene expression in the biological sample to a predetermined cut-off value, to determine whether hPygo2 expression is higher in the biological sample; therefrom determining the presence or absence of cancer in the patient.
- 2. (Currently amended) A method for monitoring the progression of a cancer in a patient, wherein the cancer is at least one of cervical cancer, breast cancer, ovarian cancer and lung cancer, the method comprising the steps of:
- (a) determining the presence or absence of cancer in the patient according to the method of claim 1;
- (b) repeating step (a) using a biological sample obtained from the patient at a subsequent time; and
- (c) comparing the level of hPygo2 gene expression detected in step (b) to the level of hPygo2 gene expression detected in step (a); and therefrom monitoring the progression of the cancer in the patient.
- 3. (Previously presented) The method according to claim 1 wherein the predetermined cut-off value is the level of hPygo2 gene expression in a normal biological sample.
- 4. (Previously presented) The method according to claim 1 wherein the cancer is ovarian cancer, and the biological sample comprises epithelial ovarian cells.

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- 5-7. (Cancelled)
- 8. (Previously presented) The method according to claim 1 wherein the level of hPygo2 gene expression is determined by the amount of hPygo2 protein.
- 9. (Cancelled)
- 10. (Currently amended) A kit for determining the presence or absence of a cancer, wherein the cancer is at least one of cervical cancer, breast cancer, ovarian cancer and lung cancer, in a patient according to the method of claim 1, the kit comprising a reagent capable of detecting hPygo2 protein or mRNA in a biological sample obtained from the patient, and instructions for using the reagent to determine whether the level of hPygo2 gene expression in the biological sample is higher compared to a predetermined cut-off value, and therefrom determining the presence or absence of cancer in the patient.
- 11 56. (Cancelled)
- 57. (Previously presented) The method according to claim 1 wherein the cancer is breast cancer, and the biological sample comprises mammary cells.
- 58. (Previously presented) The method according to claim 1 wherein the cancer is cervical cancer, and the biological sample comprises cervical cells.
- 59. (Currently amended) The method according to claim 8 wherein the level of hPygo2 protein is determined using an antibody specifically reactive immunoreactive to hPygo2 protein.
- 60. (Cancelled)

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- 61. (Currently amended) The method according to claim 58 wherein the level of hPygo2 protein is determined using an antibody specifically reactive immunoreactive to hPygo2 protein.
- 62. (Previously presented) The kit according to claim 10 wherein the reagent is an antibody specifically reactive to hPygo2 protein.
- 63. (Cancelled)
- 64. (Previously presented) The kit according to claim 10 wherein the predetermined cut-off value is the level of hPygo2 gene expression in a normal biological sample.
- 65. (Previously presented) The kit according to claim 10 wherein the cancer is ovarian cancer, and the biological sample comprises epithelial ovarian cells.
- 66. (Previously presented) The kit according to claim 10 wherein the cancer is breast cancer, and the biological sample comprises mammary cells.
- 67. (Previously presented) The kit according to claim 10 wherein the cancer is cervical cancer, and the biological sample comprises cervical cells.
- 68. (Previously presented) The kit according to claim 67 wherein the reagent is an antibody specifically reactive to hPygo2 protein.
- 69. (New) The method according to claim 2 wherein the predetermined cut-off value in step (a) is the level of hPygo2 gene expression in a normal biological sample.
- 70. (New) The method according to claim 2 wherein the level of hPygo2 gene expression is determined by the amount of hPygo2 protein.

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- 71. (New) The method according to claim 70 wherein the level of hPygo2 protein is determined using an antibody specifically immunoreactive to hPygo2 protein.
- 72. (New) The method according to claim 2 wherein the cancer is ovarian cancer, and the biological sample comprises epithelial ovarian cells.
- 73. (New) The method according to claim 2 wherein the cancer is breast cancer, and the biological sample comprises mammary cells.
- 74. (New) The method according to claim 2 wherein the cancer is cervical cancer, and the biological sample comprises cervical cells.
- 75. (New) The method according to claim 74 wherein the level of hPygo2 protein is determined using an antibody specifically immunoreactive to hPygo2 protein.
- 76. (New) The method according to claim 1 wherein the cancer is lung cancer, and the biological sample comprises lung cells.
- 77. (New) The method according to claim 2 wherein the cancer is lung cancer, and the biological sample comprises lung cells.
- 78. (New) The kit according to claim 10 wherein the cancer is lung cancer, and the biological sample comprises lung cells.